Air Management

I.   PURPOSE

   A.   The intent of this guideline is to implement a policy that requires members to exit
           the IDLH (Immediately Dangerous to Life and Health) environment prior to the
           activation of the SCBA (Self-Contained Breathing Apparatus) low air alarm. This is
           accomplished by requiring members to maintain an awareness of their air pressure
           at all times and provide an early notification of low air situations. In the event of an
           alarm activation, members are required to provide immediate notification to
           Command. This policy also defines actions to be carried out in low air
           emergencies.

II.   INTRODUCTION

   A.   Historically, firefighters have worked until their low air alarm, or End of Service
           Time Indicator (EOSTI), on their SCBA has activated. This alarm had served as
           the indicator for firefighters to leave the IDLH environment. Initiating egress
           after the activation of the EOSTI requires the individual to utilize the reserve air
           supply to exit the IDLH area. This has had tragic consequences. Evidence shows
           that firefighters do not call for help until they have consumed their reserve air
           supply. This practice puts the Rapid Intervention Team (RIT) at a severe
           disadvantage and lessens the likelihood of a successful rescue.

           In addition, the sounding of multiple alarms is commonplace, and therefore not
           seen as an indicator of a firefighter in trouble. Many firefighter testimonials have
           documented that individuals in trouble, with alarm bells ringing, went
           unnoticed by crews working in the same area.

           Therefore, it shall be the policy of Portland Fire & Rescue (PF&R) that members
           exit the IDLH environment prior to the activation of the EOSTI.

           If a low air alarm activation occurs in the IDLH area, the Incident Safety Officer
           shall investigate the situation and report his/her findings to the Chief Safety
           Officer for appropriate action.

III.   OBJECTIVE

   A.   The objective of air management is to actively monitor and manage air
           consumption while performing firefighting functions, and to calculate air usage
           so that members exit the IDLH environment prior to the activation of the low air
           alarm.   (This indicates the user is consuming their reserve air supply).

This objective will assist PF&R in meeting the intent of NFPA 1404 regarding the individual Air Management Program.

IV.   PROCEDURES

    A.   Individuals shall check their SCBA (SCBA Daily Check) upon arrival for duty.

    B.   Individuals shall check air pressure with their team or crew prior to entry into the IDLH environment.

        1.   Air pressure upon initial entry shall be 4050 psi or greater.

    C.   Continually monitor air consumption and pressure as an individual and/or team.
       Below are some examples:

        1.   Regular time intervals (approximately every five minutes)

        2.   10 minute CAD safety time notification from dispatch

        3.   Change of work area (floor level change, area searched)

        4.   Passing of major landmarks within the structure

        5.   Completion of assignment and prior to accepting another assignment

        6.   As situation dictates

    D.   Crew/team to give an automatic air status report to team leader when the first member of the crew/team reaches an air pressure of 2000 psi.

    E.   Manage air level and request relief so that egress from the IDLH area occurs prior to activation of the low air alarm.

    F.   If a low air alarm activates in the IDLH environment, it calls for an immediate radio transmission to Command specifying **WHO** you are, **WHERE** you are and **WHAT** your status is.

        1.   Example: "Command from E4, Firefighter Jones, I'm on the first floor in the Bravo–Charlie corner. My air status is 1100 and I am in sight of the door on the Bravo wall and exiting."

           NOTE: Always address this radio transmission to the proper supervisory level. For example, if assigned to Rescue Branch, radio transmissions shall be addressed to "Rescue Branch", not to Command. If assigned to a Division or Group, radio transmissions shall be addressed to the appropriate Division or Group Supervisor (e.g., Alpha Division). In all cases this information shall then be relayed to Command.

G.   Command shall confirm that the Rapid Intervention Team Leader has received the message of status, possible location and egress path for the member with the low air level.

H.   The Rapid Intervention Team shall evaluate the need to reposition to confirm the member's exit.

I.   The RIT Leader shall then track the member's remaining time in the IDLH area and notify Command if the member has not exited within one minute of low air notification.

J.   Command shall evaluate the need for an immediate RIT response.

K.   The crew shall constantly monitor the member in low air alarm. In situations of low visibility and with crews of three or more members, the member in low air alarm should be moved to the second position from the front and remain in touch contact at all times.

L.   Member shall notify Command immediately upon exit from building.

M.   All members shall maintain a heightened awareness of low air and PASS alarm activation.

N.   A low air alarm activation without a notification to Command shall produce a call to Command from any crew or member in close proximity of the alarm to report a low air alarm activation and the possible location.

     1.   Example: "Command from E24, we hear a low air alarm on the second floor in the Bravo-Charlie corner."

IV.   <u>THE FOLLOWING CONDITIONS ARE AUTOMATIC CRITERIA FOR CALLING "MAYDAY"</u>

A.   Member in low air alarm and disoriented or unsure of location

B.   SCBA failure

C.   Member trapped, entangled, or unable to free self within approximately one minute

D.   Finding a firefighter in distress

E.   At the discretion of Command

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REVISION DATE:	9/7/06
EFFECTIVE DATE:	9/7/06
REVIEWED BY:	Publications Committee
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REVIEW DATE:	